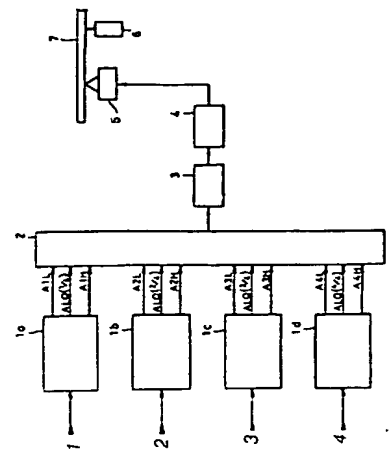


**(54) DEVICE FOR RECORDING AND REPRODUCING DIGITAL AUDIO SIGNAL**

(11) 5-250811 (A) (43) 28.9.1993 (19) JP  
 (21) Appl. No. 4-47136 (22) 4.3.1992  
 (71) PIONEER VIDEO CORP(1) (72) NAOTO ITO(2)  
 (51) Int. Cl.<sup>5</sup> G11B20/12, G11B7/00, G11B20/10

**PURPOSE:** To obtain a super CD at a low cost and to cope with high sound quality by making an audio signal to data at every plural frequency components and adding and recording identification data indicating the frequency band of each data and picking up and reproducing the data selectively by the identification data.

**CONSTITUTION:** At a recording time, low band higher signals A1L-A4L, low band lower signals ALQ1/4-ALQ4/4 and high band signals A1H-A4H generated by band division/data generation means 1a-1d are divided on a time axis by a block making means 2 and assigned to a sub block with the identification data indicating the kind of the data. Then an information part and a header part are made one block and recorded. At a reproducing time, after respective signals formed at a recording timer are separated and picked up and synthesized from a sub block header area by a signal pickup circuit at every one block after demodulated, are band-synthesized. Thus, a high dignity reproducing sound is obtained and the super CD is obtained at a low cost coping with a use.



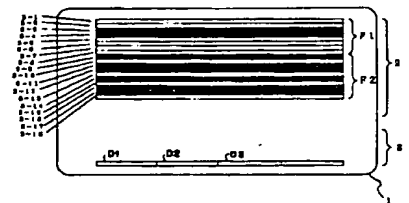
(1)-(4): recording audio signal channel 1-4, 3: encoding, 4: modulation

**(54) INFORMATION RECORDING SYSTEM**

(11) 5-250812 (A) (43) 28.9.1993 (19) JP  
 (21) Appl. No. 4-83055 (22) 6.3.1992  
 (71) CANON INC (72) MASAHIRO TAMEGAI  
 (51) Int. Cl.<sup>5</sup> G11B20/12, G11B7/00, G11B20/10, G11B27/00

**PURPOSE:** To enhance the control ability of data corresponding to the occurrence of a large number of recording errors by providing a second directory and recording remaining defect information unrecorded in a first directory.

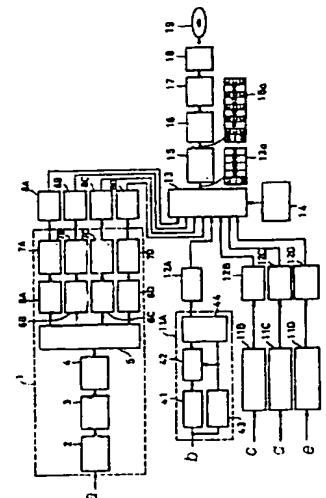
**CONSTITUTION:** By the instruction of a host computer, a defect list and sector control information are made based on a defect sector address, a recording physical address and a recording logical address recorded in a memory after file F2-recorded by an information recording and reproducing device and a user directory is recorded in the D1 of the directory area 3 of an optical card 1. At this time, when unrecorded defect list is remained, a system directory is recorded in the D2-D3 of the directory area 3 based on the defect list by un-recorded and the sector control information till the defect information in the file F2 is not present. In such a manner, when the defect information of the file data is not recorded in the first directory, remaining defect information is written in the second directory and then the data is controlled without an obstacle.

**(54) RECORDING MEDIUM AND SYSTEM FOR RECORDING AND REPRODUCING ITS INFORMATION**

(11) 5-250813 (A) (43) 28.9.1993 (19) JP  
 (21) Appl. No. 4-47135 (22) 4.3.1992  
 (71) PIONEER VIDEO CORP(1) (72) NAOTO ITO(2)  
 (51) Int. Cl.<sup>5</sup> G11B20/12, G11B19/02, H04N5/92

**PURPOSE:** To reproduce it with the same video signal format at an optional picture quality by dividing a video signal into plural video signal groups by band classification and generating them as sub block data respectively and repeating and outputting them selectively by identification data at a reproducing time.

**CONSTITUTION:** An input video signal is divided into blocks by a DCT circuit 4 and divided into four parts further by a selector 5 after DCT-converted at every block and video encoding data is held in buffers 8A-8D through a quantizer 6 and an encoder 7. Then address data from a data generation circuit 14 is fetched and the data of the buffer is outputted successively by a selector 13 succeeding to sub block header data deciding a device label and recorded on a disk 19. At a reproducing time, the identification data of a header part is discriminated from the read video signal at every block and repeated and outputted selectively according to the identification data and band-synthesized and then a regenerative video signal is obtained.



2: sub sampling circuit, 3: MC+DPCM circuit, 4: DCT circuit in frame, 15: correction code adding circuit, 16: modulator, 17: driving circuit, 18: recording head, 41: dividing filter, 42: quantizer, 43: FFT analyzer circuit, 44: multiplex, a: 1ch video signal, b: 1ch audio signal, c: 2ch audio signal, d: 3ch audio signal, e: 4ch audio signal, 11A, 11C, 11D: sub band encoder part, 12A, 12B, 12C, 12D: buffer